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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/643,491 | 08/19/2003 | Jurgen Allgaier | 05899-00016-US | 5428 |
| 23416 | 7590 | 09/27/2005 | EXAMINER | |
| CONNOLLY BOVE LODGE & HUTZ, LLP | | | WEBB, GREGORY E | |
| P O BOX 2207 | | | ART UNIT | PAPER NUMBER |
| WILMINGTON, DE 19899 | | | 1751 | |

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/643,491 | ALLGAIER ET AL. | |
| | Examiner Gregory E. Webb | Art Unit 1751 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 August 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 28-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 28-38 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>No IDS</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 28-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Southwick (US5292795).

Concerning the microemulsion and the emulsion stabilization, Southwick teaches the following:

Stabilities of the emulsions were rated after one month storage at room temperature (nominally 23.degree. C). The data are compiled in Table 2.

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Emulsions were rated unstable if solid rubber chunks were observed. The partially stable emulsion had creamed, that is the organic phase had risen to the top of the jar, but this cream could be easily re-dispersed into the water by shaking in one's hand. Stable emulsions showed essentially no changes during one month storage. We have found that emulsion stability (before solvent removal) is predictive of the final dispersion stability (after solvent removal by rotovap). (see example 2)

Concerning the copolymer, Southwick teaches the following:

The block copolymers may be produced by any well known block polymerization or copolymerization procedures including the well-known sequential addition of monomer techniques, incremental addition of monomer technique or coupling technique. As is well known in the block copolymer art, tapered copolymer blocks can be incorporated in the multiblock copolymer by copolymerizing a mixture of conjugated diene and vinyl aromatic hydrocarbon monomers utilizing the difference in their copolymerization reactivity rates. The manufacture of such polymers containing alkyl methacrylates is described in U.S. Pat. No. 5,002,676 and copending commonly assigned application Ser. No. 525,812, filed May 21, 1990, both of which are herein incorporated by reference. (see col. 3, lines 50-64)

Concerning the ABA functionality, Southwick teaches the following:

The preferred base polymers of the present invention are block copolymers of conjugated dienes, acrylic monomers such as alkyl methacrylates or

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their derivatives and vinyl aromatic hydrocarbons. Such block copolymers may be multiblock copolymers of varying structures containing various ratios of the monomers including those containing up to about 60% by weight of vinyl aromatic hydrocarbon. At higher vinyl aromatic hydrocarbon contents, the polymers are not elastomeric and would not be useful for adhesives, sealants and flexible coatings. Thus, multiblock copolymers may be utilized which are linear or radial, symmetric or asymmetric, and which have structures represented by the formulae, ABAC, ABC, BC, BAC, CABAC, CBC, (CB).sub.n X, (BC).sub.n X, (CB).sub.n XA.sub.m, (BC).sub.n XA.sub.m, (CB).sub.n XB.sub.m, (BC).sub.n XB.sub.m, etc. where A is the vinyl aromatic hydrocarbon, B is the diene, C is the acrylic monomer, X is a coupling agent and n and m are integers from 1 to 50. These are just some of the structures possible. Their finite number is not meant to limit the scope of the invention. It is not necessary but B can be a polymer block of a conjugated diene that has been hydrogenated. Hydrogenation of the diene is preferred in applications requiring superior thermal stability.(see col. 3, lines 8-31)

Concerning the polyethylene oxide, Southwick teaches the following:

Specific examples of surfactants which are useful herein include Neodol.RTM. 25-S, Neodol.RTM. 23-3S, Neodol.RTM. 23-9S, Neodol.RTM. 45-S, Alipal.RTM. EP-110, Alipal.RTM. EP-120, Calsoft F90, Nekal.RTM. BA-77, Emcol 4500, octyl phenol ethoxylates having 1 to 35 ethylene oxide groups and nonyl phenol ethoxylates having 1 to 35 ethylene oxide groups such as

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the Igepal.RTM. CA and CO series sold commercially by Rhone-Poulenc. Water soluble nonionic block copolymers are also frequently used to stabilize latexes. Examples of the latter include the Synperonic T range of polypropylene oxide - polyethylene oxide block copolymers from ICI.(see col. 6, lines 32-44)

Concerning the polydiene, 1,3-butadiene and the side chains, Southwick teaches the following:

Vinyl aromatic hydrocarbons which may be utilized to prepare copolymers include styrene, o-methylstyrene, p-methylstyrene, p-tertbutylstyrene, 2,4-dimethylstyrene, alpha-methylstyrene, vinylnaphthalene, vinylanthracene and the like. The preferred vinyl aromatic hydrocarbon is styrene.(see cols. 3-4)

Concerning the molecular weight, Southwick teaches the following:

The present invention encompasses polymers which are both high and low in molecular weight, as well as in between. High molecular weight polymers include those up to several million molecular weight as defined by gel permeation chromatography (GPC) peak molecular weight of the main species. Low molecular weight polymers include those of only 1000 molecular weight or even less. In all cases these polymers contain both conjugated dienes and acrylic monomers (alkyl methacrylates).(see cols. 2-3)

Concerning the stabilizing, Southwick teaches the following:

Additional stabilizers known in the art may also be incorporated into the adhesive composition. These may be for protection during the life of the article against, for example, oxygen, ozone and ultraviolet radiation. However, these additional stabilizers should be compatible with the

essential stabilizers mentioned herein-above and their intended function as taught herein.(see col. 8, lines 7-13)

Claims 28-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniel (US5461104).

Concerning the microemulsion, Daniel teaches the following:

The emulsion containing the ionic surfactant was only able to achieve 43 percent solids whereas the emulsions of the present invention were able to achieve 55 to 60 weight percent solids. When frozen, the emulsion containing the ionic surfactant did not return to its original state and was not redispersible. On the other hand, the emulsions made according to the present invention were redispersible after freezing and returned to their original state and appearance. The ionic surfactant emulsion was sensitive to pH. A concentrate of the emulsion coagulated in 4 and 10 pH adjusted water. The unconcentrated emulsion was dispersible in 10 pH water but coagulated in 4 pH water. The concentrates of the emulsions of the present invention redispersed in both 4 and 10 pH adjusted water. The concentrate of the ionic surfactant emulsion coagulated in both high purity and 500 ppm hard water. The unconcentrated emulsion redispersed into high purity water but coagulated in 500 ppm hard water. On the other hand, both the concentrates and the unconcentrated emulsions of the present invention redispersed into both high purity and 500 ppm hard water. Both emulsions exhibited good long term stability.(see example 3)

Concerning the copolymer, Daniel teaches the following:

The block copolymers may be produced by any well known block polymerization or copolymerization procedures including the well known sequential addition of monomer techniques, incremental addition of monomer technique or coupling technique as illustrated in, for example, U.S. Pat. Nos. 3,251,905, 3,390,207, 3,598,887 and 4,219,627 which are herein incorporated by reference. As is well known in the block copolymer art, tapered copolymer blocks can be incorporated in the multiblock copolymer by copolymerizing a mixture of conjugated diene and vinyl aromatic hydrocarbon monomers utilizing the difference in their copolymerization reactivity rates. Various patents describe the appropriation of multiblock copolymers containing tapered copolymer blocks including U.S. Pat. Nos. 3,251,905, 3,265,765, 3,639,521, and 4,208,356 which are herein incorporated by reference. If desired, these block copolymers can be hydrogenated. Hydrogenation may be effected selectively as disclosed in U.S. Pat. Reissue No. 27,145 which is herein incorporated by reference. The hydrogenation of these polymers and copolymers may be carried out by a variety of well established processes including hydrogenation in the presence of such catalysts as Raney Nickel, noble metals such as platinum and the like, soluble transition metal catalysts and titanium catalysts as in U.S. Pat. No. 5,039,755, which is also incorporated by reference.(see col. 3, lines 35-59)

Concerning the ABA, Daniel teaches the following:

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Polymers of conjugated diolefins and copolymers of one or more conjugated diolefins and one or more alkenyl aromatic hydrocarbon monomers such as ABA block copolymers are frequently prepared in solution using anionic polymerization techniques. In general, when solution anionic techniques are used, these ABA block copolymers are prepared by contacting the monomers to be polymerized simultaneously or sequentially with an organoalkali metal compound in a suitable solvent at a temperature within the range from about -150.degree. C. to about 300.degree. C., preferably at a temperature within the range from about 0.degree. C. to about 100.degree. C. Particularly effective anionic polymerization initiators are organolithium compounds having the general formula:(see col. 3, lines 2-14)

Concerning the polyethylene oxide, Daniel teaches the use of various monomers including ethoxy monomers (see col. 6, lines 34-43)

Concerning the polydiene, 1,3-butadiene and the side chains, Daniel teaches the following:

As is well known, polymers containing both aromatic and ethylenic unsaturation can be prepared by copolymerizing one or more polyolefins, particularly a diolefin, in this case butadiene and isoprene, with one or more alkenyl aromatic hydrocarbon monomers, in this case styrene. Other diolefins such as 2,3-dimethyl-1,2-butadiene, 1,3-pentadiene, 1,3-hexadiene and the like, and other vinyl aromatic hydrocarbons such as o-methylstyrene, p-methylstyrene, p-tertbutylstyrene, 1,3-dimethylstyrene, alphamethyl styrene, vinylnaphthalene, vinylanthracene and the like may be

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used. The copolymers may, of course, be random, tapered, block or a combination of these, in this case block. The copolymers may have radial or star configurations as well.(see col. 2, lines 45-57)

Concerning the molecular weight, Daniel teaches the following:

The emulsifier should have a number average molecular weight of from 260 to 1600. The hydrophobe of the emulsifier should have a number average molecular weight of at least 130 (and can go up to 320) to partition sufficient emulsifier to the emulsion droplet interfaces. The number average molecular weight (130 to 1275) of the hydrophile is chosen to sufficiently lower the interfacial tension between the bulk and dispersed phases in the emulsion. The molecular weight could be higher than 1600 but it is unnecessary to use a higher molecular weight material here and doing so would increase the cost of the emulsion without providing any significant functional advantages. The same number of molecules are necessary to provide the advantage of lowering the interfacial tension whatever the length of those molecules.(see col. 4, lines 41-55)

Concerning the stabilizing, Daniel teaches the following:

The purpose of the stabilizer is to prevent flocculation of the emulsion. In other words, if the stabilizer is performing its function, the small droplets will not agglomerate to form larger droplets. If this agglomeration continues long enough, the emulsion will become unstable and cream out into phases. Such flocculation often occurs during shipping

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and/or storage over a long period of time. The stability of the emulsion in terms of critical flocculation point is relatively independent of the molecular weight of the stabilizer as long as it is greater than 1600 and the molecular weight of each hydrophilic arm is at least 1000. If these molecular weights are lower, then the length of the molecule is insufficient to hold the emulsion together over a long period of time.(see col. 5, lines 52-59)

Claims 28-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Southwick (US5985979).

Concerning the microemulsion, Southwick teaches the following:

In some cases, fine polymer cement emulsions are necessary in order to make fine latexes. The present invention can produce fine emulsions using a non-migrating polymeric stabilizer. It is also known that small (submicron) particle sizes in latexes can enhance coating and adhesive film coalescence. Thus, it is highly advantageous to be able to produce a stable polymer cement emulsion with an average drop size of less than one micron.(see cols. 1-2)

Concerning the copolymer, Southwick teaches the following:

The block copolymers may be produced by any well known block polymerization or copolymerization procedures including the well known sequential addition of monomer techniques, incremental addition of monomer technique

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or coupling technique as illustrated in, for example, U.S. Pat. Nos. 3,251,905, 3,390,207, 3,598,887 and 4,219,627 which are herein incorporated by reference. As is well known in the block copolymer art, tapered copolymer blocks can be incorporated in the multiblock copolymer by copolymerizing a mixture of conjugated diene and vinyl aromatic hydrocarbon monomers utilizing the difference in their copolymerization reactivity rates. Various patents describe the appropriation of multiblock copolymers containing tapered copolymer blocks including U.S. Pat. Nos. 3,251,905, 3,265,765, 3,639,521, and 4,208,356 which are herein incorporated by reference. If desired, these block copolymers can be hydrogenated. Hydrogenation may be effected selectively as disclosed in U.S. Pat. No. Reissue 27,145 which is herein incorporated by reference. The hydrogenation of these polymers and copolymers may be carried out by a variety of well established processes including hydrogenation in the presence of such catalysts as Raney Nickel, noble metals such as platinum and the like, soluble transition metal catalysts and titanium catalysts as in U.S. Pat. No. 5,039,755, which is also incorporated by reference.(see col. 3, lines 40-65)

Concerning the ABA, Southwick teaches the following:

Polymers of conjugated diolefins and copolymers of one or more conjugated diolefins and one or more alkenyl aromatic hydrocarbon monomers such as ABA block copolymers are frequently prepared in solution using anionic polymerization techniques. In general, when solution anionic techniques

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are used, these block copolymers are prepared by contacting the monomers to be polymerized simultaneously or sequentially with an organoalkali metal compound in a suitable solvent at a temperature within the range from about -150.degree. C. to about 300.degree. C., preferably at a temperature within the range from about 0.degree. C. to about 100.degree.

C. Particularly effective anionic polymerization initiators are organolithium compounds having the general formula:(see col. 3, lines 9-21)

Concerning the polyethylene oxide, Southwick teaches the following:

A hydrogenated styrene-butadiene-styrene triblock copolymer such as that described in Example 1 was dissolved in a 60-30-10 blend of cyclohexane, methyl ethyl ketone, and isopropyl alcohol to give a cement containing 19.5% w polymer. 0.5 g of a polystyrene-polymethacrylic acid diblock having block molecular weights of about 2000 and 1200 respectively were added to the cement. The final polymer concentration was 20% w. 50 g of this cement were then added incrementally to 50.0 g of an aqueous solution containing 0.12 g of 30% ammonium hydroxide and 0.1%w sodium dodecyl sulfate. Between cement additions the mixture was subjected to ultrasonic mixing for about 20 seconds. A total of five cement additions were made.(see example 1)

Concerning the polydiene, 1,3-butadiene and the side chains, Southwick teaches the following:

Vinyl aromatic hydrocarbons which may be utilized to prepare these polymeric stabilizers include styrene, o-methylstyrene, p-methylstyrene, p-tert-butylstyrene, 2,4-dimethylstyrene, alpha-methyl styrene,

vinylnaphthalene, vinylanthracene and the like. The preferred vinyl aromatic hydrocarbon is styrene. Conjugated dienes or diolefins which can be used herein include butadiene and isoprene as well as other dienes including 2,3-dimethyl-1,2-butadiene, 1,3-pentadiene, 1,3-hexadiene and the like.(see col. 3, lines 50-60)

Concerning the molecular weight, Southwick teaches the following:

The molecular weights of these polymers may range from 500 to 25,000, preferably from 4,000 to 15,000. The vinyl aromatic hydrocarbon block molecular weight generally ranges from 2,000 to 15,000 and the molecular weight of the acrylic monomer block should be in the range from 200 to 10,000. The molecular weights of the blocks must be adjusted or the pH of the aqueous phase altered so that the proper solubility balance (hydrophilic/lipophilic balance) exists between the two blocks so that the molecule will adsorb at the cement-water interface. This concept of solubility balance is routinely used with low molecular weight surfactants. The styrene block must be large enough to firmly anchor the block polymer to the dispersed polymer particle. The molecular weights are gel permeation chromatography peak molecular weights of the main species.(see col. 5, lines 25-47)

Concerning the stabilizing, Southwick teaches the following:

This invention relates to the production of fine stable latexes of block copolymers of vinyl aromatic hydrocarbons and conjugated dienes. More

specifically, it relates to the production of such latexes which are stabilized with a non-migrating acrylic block polymer stabilizer.(see col. 1, lines 4-10)

Concerning the emulsion stabilization, Southwick teaches the following:

It is preferred, although not necessary, that the acrylic block polymer is dispersed or dissolved into the polymer cement and the cement is emulsified by addition to a known volume of water which is agitated using a suitable emulsification device, especially a high speed mixer. This procedure promotes the efficient preparation of cement-in-water emulsions with small average drop sizes. Another preferred element of the process is that the minimal acrylic monomer block polymer level consistent with stable emulsions and latexes is used because high levels can possibly impair the ultimate product performance of the latex in that films formed from the latex may be too hard and the tack may be insufficient. The final emulsion may contain up to 75 weight percent of the cement as the dispersed phase. This is an aqueous phase to cement ratio of 1:3.(see col. 6, lines 24-39)

Claims 28-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartmann (US5739190).

Concerning the microemulsion, Hartmann teaches the following:

It is the object of the present invention to provide a process for the preparation of stable water-in-oil emulsions of hydrolyzed polymers of N-vinyl amides, in which the water-in-oil polymeric emulsions of the

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partially or completely hydrolyzed N-vinyl amides have a lower viscosity than prior art water-in-oil polymeric emulsions having the same polymer content.(par#37)

Concerning the copolymer, Hartmann teaches the following:

EP-A 0,216,387 reveals a process for the preparation of water-soluble copolymers containing vinyl amine units as polymerized material by copolymerization of(par#29)

Concerning the ABA, Hartmann teaches the following:

Preferred oil-soluble water-in-oil emulsifiers in component (a) are described in EP-A 0,000,424. Particularly suitable emulsifiers in component (a) are block copolymers of the ABA type, the block A of which consists of condensed 12-hydroxystearic acid and the block B of which comprises poly(ethylene oxide) having a molar mass of more than 500 g per mole. The molar mass of the block A is likewise more than 500 g/mol. Block copolymers of this nature can be obtained commercially under the names of Hypermer B246 and Hypermer B261. They have HLB values in the range of from 5 to 9. The emulsifier mixtures preferably contain from 10 to 70 wt % of these block copolymers.(par#64)

Concerning the polyethylene oxide, Hartmann teaches the following:

Suitable initiators are, for example, acetylcylohexanesulfonyl peroxide, diacetylperoxy dicarbonate, dicyclohexylperoxy dicarbonate, di-2-ethylhexylperoxy dicarbonate, tert-butyl perneodecanoate,

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2,2'-azobis-(4-methoxy-2,4-dimethylvaleronitrile),
2,2'-azobis(2-methyl-N-phenylpropionamidine) dihydrochloride,
2,2'-azobis(2-methylpropionamidine) dihydrochloride, tert-butyl
perpivalate, dioctanoyl peroxide, dilauroyl peroxide,
2,2'-azobis(2,4-dimethylvaleronitrile), dibenzoyl peroxide,
tert-butylper-2-ethyl hexanoate, tert-butyl permaleate,
2,2'-azobis-(isobutyronitrile), dimethyl-2,2'-azobisisobutyrate,
bis-(tert-butylperoxy) cyclohexane, tert-butylperoxy isopropylcarbonate,
tertbutyl peracetate, 2,2'-bis-(tert-butylperoxy) butane, dicumyl
peroxide, di-tert-amyl peroxide, di-tert-butyl peroxide, p-menthane
hydroperoxide, pentane hydroperoxide, cumene hydroperoxide and tert-butyl
hydroperoxide.(par#59)

Concerning the polydiene and the side chains, Hartmann teaches the following:

(2) from 1 to 99 mol % of an ethylenically unsaturated monomer selected
from the group consisting of vinyl formate, vinyl acetate, vinyl
propionate, N-vinyl pyrrolidone, N-vinyl caprolactam, N-vinyl imidazole,
N-vinyl-2-methylimidazole, N-vinyl-2-ethylimidazole and the salts, esters,
nitriles, and amides of acrylic acid and methacrylic acid, or mixtures
thereof.(see col. 4, lines 10-20)

Concerning the 1,3-butadiene, Hartmann teaches the following:

Such oil-soluble polymeric water-in-oil emulsifiers (component (a) of the
emulsifier mixture) are for example, diblock and triblock copolymers based

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on polystyrene and poly(ethylene oxide), as described in ACS Polym. Prepr. Vol 18, 329 (1977) and in DE-B 2,301,224 and DE-A 4,134,967. Also suitable are diblock and triblock copolymers based on alkyl methacrylates and poly(ethylene oxide) as described in Polym. Jr., 8, 190 (1976), and diblock and triblock copolymers based on polyisobutene and poly(ethylene oxide) as described in Polym. Vol 13, 115 (1985), as well as graft copolymers based on polystyrene and poly(vinyl pyrrolidone) as revealed in Angew. Macromol. Chemie, 132, 81(1985). Furthermore polymeric emulsifiers are suitable such as are described in EP-B 0,214,758 and U.S. Pat. No. 4,339,371.(see col. 6, lines 39-53)

Concerning the stabilizing, Hartmann teaches the following:

8. A stable water-in-oil emulsion of a hydrolyzed polymer of an N-vinyl amide produced by the process defined in claim 1.(see claim 8)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory E. Webb
Primary Examiner
Art Unit 1751

gew